

IN THE CLAIMS:

Please amend the claims as follows. A complete set of the pending claims is listed.

1. (ORIGINAL) An arithmetic apparatus for executing arithmetic processing including conditional branches, comprising:

a configuration information generation means for dividing said arithmetic processing including conditional branches to first processing of unconditional branches and second processing with conditional branches and generating configuration information in accordance with said first processing of unconditional branches;

a reconfigurable arithmetic means for reconfiguring based on said configuration information and executing said divided first processing of unconditional branches based on arithmetic data; and

an arithmetic means for performing said divided second processing with conditional branches, and in accordance with a result of the processing, correcting an arithmetic result of said reconfigurable arithmetic means.

2. (ORIGINAL) An arithmetic apparatus as set forth in claim 1, wherein said reconfigurable arithmetic means comprises

a configuration information storing means for storing said configuration information;

an arithmetic data storing means for storing said arithmetic data input from outside; and

a plurality of arithmetic elements to be reconfigured based on said configuration information.

3. **(CURRENTLY AMENDED)** An arithmetic apparatus as set forth in claim 1, wherein said configuration information generation means comprises a dividing means for dividing said arithmetic processing so that a frequency of said first processing of unconditional branches becomes higher than a frequency of said second processing with conditional branches.

4. **(ORIGINAL)** An arithmetic method for performing arithmetic processing including conditional branches, including:

a dividing step for dividing said arithmetic processing including conditional branches to first processing of unconditional branches and second processing with conditional branches;

a configuration information generation step for generating configuration information in accordance with said divided first processing of unconditional branches;

a first arithmetic step for reconfiguring based on said configuration information and executing said divided first processing of unconditional branches based on arithmetic data; and

a second arithmetic step for performing divided second processing with conditional branches and, in accordance with a result of the processing, correcting an arithmetic result of said first arithmetic step.

5. **(CURRENTLY AMENDED)** An arithmetic method as set forth in claim 4, wherein said arithmetic processing is divided in said dividing step so that a frequency of said first processing of unconditional branches becomes higher than a frequency of said second processing with conditional branches.